

The Automobile Speaks

It tells you what it is, what it requires and it asks to be treated fairly.

By Frederick C. Guerrich.

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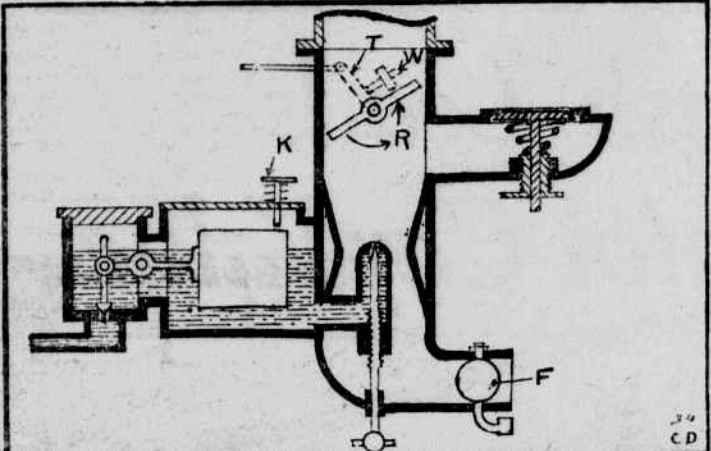
Number 34.

In the last talk I told you that when the vaporized gasoline struck the cold manifold it would condense and tend to run back to the carburetor. This practically nothing but air would reach the cylinders when the engine is cold. This means that the engine will not be able to start.

The above is the reason why it is hard to start on a cold day. While the carburetor will do its work properly, the vapor, however, on the way to the cylinders, strikes the cold manifold and so condenses, with the result that practically nothing but air reaches the cylinders. When the engine is cranked it really travels very slowly, and so the suction and the movement of the mixture is slow, thus increasing the chance for condensation.

What can we do to start in cold weather? If, when starting, we make the mixture very rich, then even though most of the gas condenses on the way to the cylinders, the chances are that enough will reach them to cause an explosion. The explosion will make the engine revolve fast, causing a quick suction and a quick movement of the mixture, thus not giving the gas a chance to condense. Not only that, but because of the friction between the previously condensed gas and the fast moving air the condensed gasoline, which is on the manifold, will be made to travel in the direction of the cylinders and so get into them, where, the temperature being high from the former explosion, it will vaporize again.

Two things must be done. For starting the mixture must be made so



rich in gas that while much will condense on the way to the cylinders enough will reach them to give an explosive mixture; and to keep the engine going, when the mixture as it leaves the carburetor is correct, heat must be added.

The mixture is made rich for starting in a number of ways. Some carburetors have an attachment by which the opening of the nozzles can be increased from the dash, while all either have a device for choking off the air (what is known as a choke valve) or for flooding the carburetor by holding down the float.

"K" shows the choke valve and "K" a pin for holding down the float.

Generally using these priming devices will be all that is necessary to start the engine, but in extreme cold weather it will often be necessary to prime the engine by pouring a little raw gasoline into the cylinders through the compression cocks or spark plug holes. Warming the gasoline used for this purpose by placing the can in which it is in boiling water for a while will help when it is found that priming in this way the engine does not start. Spinning the crank handle vigorously will also help.

Unfortunately there is at present no satisfactory way to supply heat when starting the engine, but once the engine has started the air which passes through the carburetor can be heated by placing a device, called a stove, over the exhaust pipe so as to make the air first pass over this hot pipe. From the stove a flexible hose is run to the air intake of the carburetor. At the end of this hose a shutter is generally placed. In cold weather this shutter should be closed, while it should be open in hot weather. Most people do not know the purpose of this shutter and run their car with it open in winter. The engine will run better and start easier if it is kept closed.

The manifold and carburetor are often heated by hot water jacketing them, using the hot water from the top of the engine water jackets for this purpose. Many cars have a valve placed in the piping of this water so as to be able to prevent the circulation of the water through the jacket in summer. This valve is generally found near the water pump. It would be well for owners to be sure that this valve is open in winter. Usually it is open when the handle is parallel to the body of the valve.

To control the speed of the engine when it is "idling," that is, running without driving the car, a screw "W," shown dotted, is furnished. The butterfly lever "T" rests against this screw when the throttle valve is closed the maximum, so that this screw controls the degree the valve is closed. By adjusting this screw the "idling speed" of the engine can be regulated. If your engine tends to stall or stop when idling, as in traffic, you can often correct the fault by turning in on this screw.

DODGE EXHIBIT.

In addition to the notably improved Dodge Brothers sedan and coupe the Stratton-Biss Company is exhibiting an unusually exclusive town brougham body mounted on a Dodge Brothers chassis at the Closed Car Show.

In this exceptionally refined car seems to have been anticipated the motorist's every desire in exclusive design and luxurious comfort. Cleanly chiseled body lines reflecting the latest foreign practice flow squarely back from the cowl. The body is painted a richly toned dark green, with the upper quarter done in black. Square side lamps are carried. Disc wheels hide the springs and under parts from view. Individual doorsteps, with separate fenders, add a note of dignity to the whole ensemble.

The interior appointments closely follow the latest European practice and leave little to be desired. A delicately striped faux gray Polart will be used in upholstering the wide, commodious rear seat, as well as covering the entire interior. Two drop seats fold flush with the front of the body. The windows are square cut in design, easily raised and lowered—including a front window—by nickel-plated handles. Window shades are of silk, mounted on rollers. Interior illumination is given by a heavily nickel-plated bordered dome light and two additional interior body lights on both sides of the rear window. An electric button and built-in telephone connect occupants with chauffeur. These broughams are built to order by Stratton-Biss Company, and no two are identical.



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LONDON SHOW WAS A RECORD BREAKER

A General Trend Seen Toward Small, Light, Well Built Cars.

The London automobile show was a great success. The fact that the exhibition was the fifteenth of the series might be thought to argue that by this time the British motor industry could have nothing fresh to originate and would have exhausted innovations. But such was not the case, as the number of cars displayed represented not progress alone but developments of merit and importance in a score of directions.

The great growth in automobilism in England was revealed by the fact that the number of cars in use to-day in Great Britain totals at least 245,000, an increase of 16,000 in little more than half a year. And these figures show every indication of maintaining a steady growth and even of augmenting in number rapidly, since the great tendency toward the use of light cars is being so admirably catered to by manufacturers. Contrary to what was the case a few years back, this year's show was marked by the limited number of models produced by the average individual manufacturer. Where once there were six or eight, and occasionally ten or eleven, the average to-day is round about three. And a happy number, too, in view of the relief to the factories and saving of capital and reduction of the number of spare parts that have necessarily to be stocked.

Equally undeniable is the remarkable efficiency of the modern motor car. Design that are continually progressing, reduction of the weights of reciprocating parts and more thorough knowledge of thermodynamics of the underlying principles of carburetion and a greater ability to translate the theoretical into everyday economic practice, all these and other factors are combined in the majority of 1922 British models to provide power units that develop the energy of a mammoth to the cubic capacity of an eggshell.

But it is perhaps in the influence of the recent high taxation of horse power on design that the motor vehicle offers its most striking lesson—the heavy impost on cylinder bore had the perfectly natural result of leading manufacturers to provide the user with all the power he requires at the lowest cost. Hence it is noticed that the stroke bore ratio of the majority of this year's exhibits is not far from 2 to 1. In particular British and French cars both reveal the tendency strongly. Italian cars also carry this impression, but America is an exception, many of the transatlantic exhibits approximating to what is termed the "square" engine, i. e., equal bore and stroke. It is a common sight on exhibition, for eight or ten years ago Britain found many advantages for a bore approximately equal to the stroke. Yet the objections raised at that period no longer appear to exist, modern designs having completely eliminated its alleged drawbacks.

Another trend in the 1922 exhibit is the increased accessibility of working parts. To-day, as never before, it is the day of the owner-driver. Chauffeurs are comparatively few—indeed, the ever increasing number of the low-powered cars, particularly the two seater, in itself bars the employment of a paid driver.

The keynote of this year's exhibits may be said to be economy. While one section comprises the luxury cars that will ever be in demand, another and numerically larger portion is devoted to cars that cost from a trifle more than \$500 to \$2,000 or \$2,500. Of the latter there is a very wide choice, an ever-increasing one, the more so since the modern light car is sold complete with every accessory. On the other hand the luxury cars

themselves may truthfully be termed economical, for never was there such saving of unnecessary weight or such perfect carburetion devices as those in next year's models. Fuel will now yield a mile per gallon easily double what it would have done six years ago. Equal torque lengthens the life of tires, and cars that are free from mechanical troubles and their subsequent expense make the cost of motoring now barely one-third of the previous figures.

Apart from mechanical improvements the show had other desirable tendencies, especially in coach work. And as for comfort ample leg room for both back and front seats is universal, and the seats themselves can often be tilted or moved backward or forward. Invariably they are padded luxuriously, they can easily be cleaned out and to suit them to different persons is but the work of a moment.

But it is the light car which strikes the observant eye. It is everywhere, on stands devoted to its existence, and on stands where it is the latest outcome of an older and heavier brand. On occasion it is simple, with a two cylinder engine, and air cooled perhaps; at other times it is a luxury model in miniature. But even in its cheapest form the light car as seen at the White City and Olympia is a sound article, fortunately lacking the cheap appearance and doubtful value of some of those seen in the past.

MICHELIN TIRE CO. MAKES PRICE CUT

The Michelin Tire Company of Milltown, N. J., announces new prices on all casings and tubes effective November 7. The reductions have not taken the form of a cut of any definite percentage; instead the reduced prices on each size have been considered separately on the basis of the cost of production at the lower prices of raw materials prevailing now.

In announcing these reduced prices, the Michelin Company calls particular attention to their line of regular size cord tires, which are priced almost the same as their fabric tires. For instance, the new price on the Michelin 10x1 1/2 inch fabric tire is \$16, where as the reg-

ular size cord in this size is quoted at only \$14.90.

The company anticipates a very large sale for their regular size cords, especially at the new prices, as the regular size cords average about 20 per cent. more mileage than the fabric tires, yet sell at about the same prices.

U. S. TIRE CO. MAKES BIG CUT IN PRICES

C. B. Seger, president and chairman of the board of the United States Rubber Company, authorizes the following statement:

"Effective November 19, the consumers' price on the U. S. 30x4 1/2 fabric tire—this company's standard for Fords and other small cars—will be \$10.90. This is, we believe, the lowest price ever established by any of the standard tire manufacturers. It is below pre-war basis."

"The company has also made effective to-day a reduction in prices of its full line of tires, including Royal Cords and fabrics for passenger cars and solid and pneumatic tires for trucks."

This announcement is made at this time in order to facilitate dealers in making their plans for 1922.

The new prices are available to the public all over the country, through the established tire dealers who handle United States tires.

JERSEY CITY HOLDS BIG AUTO SHOW

Jersey City again will prove its value as an automobile centre, and the Hudson County Automobile Trade Association will come into its own when the second annual display of the members of that organization is staged in the Fourth Regiment armory, Jersey City, this week. For the last three months the Hudson county dealers have been working their hardest to make certain that the first display of cars held last year would be exceeded. With everything ready for the doors to swing open to-morrow afternoon at 1:30 o'clock such success seems assured.

This is evidenced by the fact that

thirty-six spaces have been taken by passenger car dealers and five spaces by commercial car dealers. As this number was all that could possibly have been squeezed on to the armory floor the popularity of the exhibition with the men who sell motor cars in Hudson county is noticeable. In all thirty-five different makes of passenger cars will be displayed, the manufacturers cooper-

ating to such an extent that every dealer will show the latest models of open and closed cars, the majority of these coming direct from the factory.

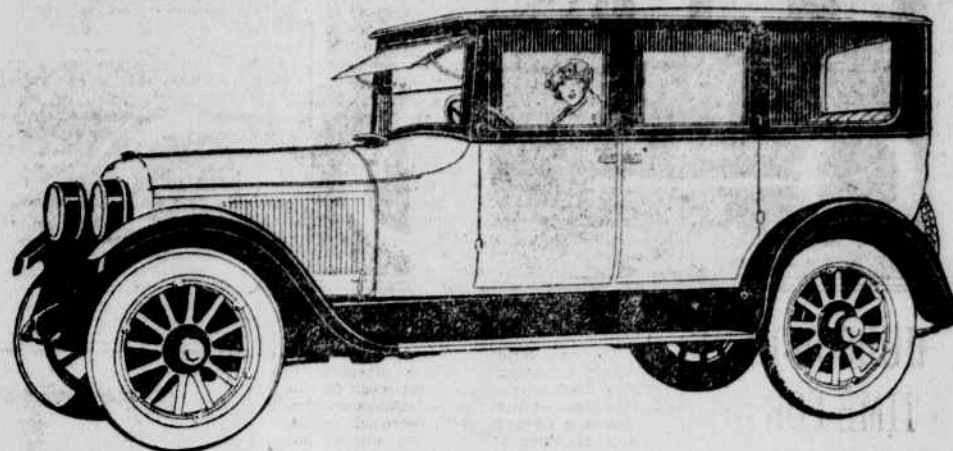
MERCER.

The Whiting Motor Company is showing two attractive Mercer models, a touring limousine and a coupe. The well-

known power of the Mercer gives a very wide touring range to these closed cars when it is necessary.

JORDAN.

The Sherwood Automobile Company is showing two models of the Jordan line—a five passenger sedan in dull finish and an inside drive brougham in bright finish.



A Genuine Surprise Awaits You

Create for yourself your ideal of what a closed car should be, and do. Then examine the new Paige Sedan, Limousine or Coupe of the size that suits you.

In beauty, in elegance, in perfection of finish and appointments, and in comfort we believe it will surpass your expectations.

And it is mounted on a chassis ideally suited to it. Nine world's stock chassis records held by the 6-66 Daytona Model, prove Paige power which assures an ever-ready alertness and quick pick-up. With it is an absence of vibration equally essential in this type of automobile.

It is when you ride in this car—and we hope that you will accept a demonstration—that the biggest surprise will come to you. You will find for yourself beauty, comfort and performance that are truly superlative at a really reasonable price.

List prices of Paige Cars range from \$1635 to \$4030

A Complete Line of Closed Cars is being Shown at Our Broadway Headquarters

PAIGE DETROIT CO. of N. Y. Inc.
Broadway at 56th St. Circle 6370

PAIGE

THE MOST BEAUTIFUL CAR IN AMERICA

Chalmers Now Reduced to \$1295



Nothing in the field—either six or four—can compare with Chalmers value at its newly reduced prices.

The quality which gives it downright superiorities in performance, in economy, in riding and driving, clearly entitles it to be classed with cars which cost a great deal more.

Get the truth about the Chalmers—about its low costs, its durability, its soundness as an investment.

Ride in it, drive it, and see how splendidly it performs.

Reduced Prices in Effect Now

Roadster	\$1245	Sport Car	\$1445	Coupe	\$1998
5-Pass. Touring Car	1295	7-Pass. Touring Car	1395	Sedan	2295

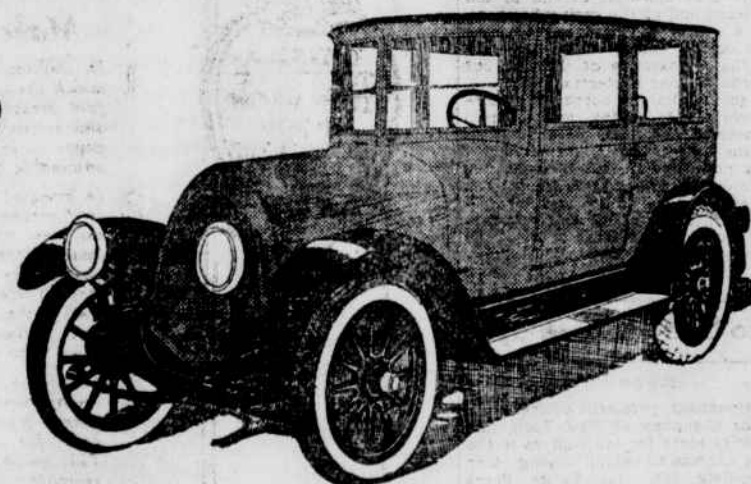
Prices F. O. B. Factory, War Tax to be added—All Models Equipped with Cord Tires

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The FRANKLIN SEDAN

Out-Sells just as it Out-Travels All Other Enclosed Cars

Of 1920 Franklin production, over 46% was enclosed cars, 35.3% was Sedans; of 1921 production, 42% is Sedans.

Of 1920 automobile production in general, only 17% was enclosed cars.

THERE are many reasons for this, but they are all summed up in the Franklin Sedan quality of maximum usefulness at minimum cost.

The Franklin Sedan is not only lighter than most open cars, but more flexible. It absorbs shock more easily—wood frame, full elliptic springs, fourpoint body suspension. It is direct air cooled—has no radiator troubles. And it is different in many other ways.

The comfort, endurance and economy that this construction gives, combined with the practical advantages of wide windows, single wide doors and sloping V-shaped windshield, make the Franklin Sedan even more satisfactory for touring purposes than open cars of other makes. Investigate it.

20 miles to the gallon of gasoline
12,500 miles to the set of tires
50% slower yearly depreciation
(National Averages)

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